

REMARKS

Claims 1-8 are pending. By this Amendment, Claims 1-8 are amended.
Applicant respectfully submits that no new matter is presented herein.

Claim Rejections – 35 U.S.C. §102/103

Claims 1-5 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,427,644 to Nagatsuka et al. (Nagatsuka). Claims 1-8 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,911,257 to Morikawa et al. (Morikawa). Claims 6-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nagatsuka in view of U.S. Patent No. 5,220,754 to Tayebi et al. (Tayebi) and/or U.S. Patent No. 6,120,363 to Dunn.

Applicant respectfully traverses each and every one of the above listed rejections for at least the following reason(s).

Claims 1-3 each commonly recite the steps of grinding a work by a grindstone, and then moving the rotary grindstone and the work axially relative to each other and then brushing a ground surface of the work by a rotary brush. Figures 6 and 8 illustrate the flow of these steps. During the grinding step shown in Figure 6, the grindstone faces a work while during the brushing shown in Figure 8, the grindstone is displaced axially away from the work and the rotary brush is instead placed to face the work.

Nagatsuka and Morikawa each fail to disclose or suggest the above discussed steps.

In particular and with regards to Nagatsuka, Applicant notes that the grinding of the wafer (64) as a work by the grindstone (178) is shown in Figure 11

and brushing of the wafer (64) by the wash-brush roller (198) is shown in Figure 12. However, Nagatsuka fails to clearly explain how the positions of the grindstone (178) and roller (198) are related to each other. The claimed steps of axially moving a grindstone with respect to a work after the grinding of the work and then brushing the ground surface of the work by a rotary brush is not taught or suggested by Nagatsuka.

Regarding Morikawa, while the top surface (52) of the bonding plate (5) as a work is contacted by a head (4) for removing adhered objects, the bonding plate (5) is also brushed by the brush (11). As such, it appears as if the claimed steps of axially moving a grindstone with respect to a work after the grinding of the work and then brushing the ground surface of the work by a rotary brush is not taught or suggested by Morikawa.

As for Claim 4, Applicant respectfully points out that the claim recites that a rotary brush is mounted adjacent to the rotary grindstone. However, it appears as if Nagatsuka is totally silent as to how the grindstone (178) and roller (198) should be related to each other in the same working space. With respect to Morikawa, Applicant notes that the head (4) and brush (11) do not appear to be adjacent to each other.

Moreover, with regards to each of independent Claims 1-4, Applicant notes that Claims 1-4 each recites a rotary brush being coaxially mounted with a rotary grindstone. Figures 3-12 of the application as originally filed clearly illustrates several embodiments of the present invention, each embodiment including the coaxial arrangement of the rotary brush relative to the grindstone.

Applicant respectfully submits that the rotary brush (114, 126) and (198, 210) taught by Nagatsuka is not coaxially mounted with the rotary grindstone (178). Rather, the rotary brush (114) and (198) is mounted on a separate and distinct axis relative to the grindstone (178). As such, Applicant respectfully submits that Nagatsuka fails to disclose, teach or suggest each and every step and feature of the recited processes and apparatus, respectively, of Claims 1-4.

Similarly, Morikawa suffers from the identical deficiency of Nagatsuka. Specifically, Morikawa teaches the rotary brush (1) has a separate and distinct axial shaft (12) that is not coaxial relative to the axial shaft of the grindstone (4). As such, Applicant respectfully submits that Nagatsuka fails to disclose, teach or suggest each and every step and feature of the recited processes and apparatus, respectively, of Claims 1-4.

Tayebi and Dunn fail to cure or otherwise address the above described deficiency of Nagatsuka.

To qualify as prior art under 35 U.S.C. §102, each and every feature of these rejected claims must be disclosed or taught by the applied art of record.

Moreover, Applicant respectfully notes that the Office Action has not articulated any reason as to why one of ordinary skill in the art would have considered it obvious to modify any of the cited references so as to coaxially mount the rotary brush with the grindstone.

For at least the above provided reasons, Applicant respectfully submits that Claims 1-4 are not anticipated by nor rendered obvious in view of Nagatsuka,

Morikawa, Tayebi and Dunn, alone or in any combination thereof. As such, Applicant respectfully submits that Claims 1-4 should be deemed allowable.

Claims 6-8 depend, directly or indirectly, from Claim 4. It is respectfully submitted that these dependent claims should be deemed allowable for at least the same reasons Claim 4 is allowable, as well as for the additional subject matter recited therein.

Applicant respectfully requests the rejections of Claims 1-8 be withdrawn.

Conclusion

In view of the above, reconsideration of the application, withdrawal of the rejections, allowance of Claims 1-8, and the prompt issuance of a notice of allowance is respectfully requested.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 107348-00481.**

Respectfully submitted,
ARENT FOX LLP

A handwritten signature in black ink, appearing to read 'Murat Ozgu', is written over the printed name.

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